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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,593	12/04/2003	Abdus Suttar Khan	033275-422	6912

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EXAMINER

VAN, LUAN V

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,593

Applicant(s)

KHAN ET AL.

Examiner

Luan V. Van

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/28/04
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/28/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). Receipt is acknowledged of papers submitted, which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Foster '205.

Regarding claim 1, Foster '205 teaches a method of depositing a MCrAlY-coating on the surface of a single crystal article, such as a nickel base superalloy, the method comprising the steps of coating the article only at a local area with the MCrAlY-coating by an electroplated method (column 7 lines 58-62).

Regarding claim 3, Foster '205 teaches coating the article only at a local area with the MCrAlY-coating by an electroplated method (column 7 lines 58-62).

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Replication of the electroplating method at different local areas on the surface of the article is not patentable unless a new and unexpected result is produced.

Regarding claims 4 and 5, Foster '205 teaches during the step of coating the article only at a local area with the MCrAlY-coating by an electroplated method the areas not to be coated are masked with wax (column 7 lines 58-62).

Regarding claim 7, Foster '205 teaches the method is used as a repair process for a used MCrAlY-coating. This is merely an application of the invention. The invention of Foster '205 is equally applicable to a repair process.

Regarding claim 8, Foster '205 teaches a gas turbine article is coated (see Example).

Claims 1-4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Rigney et al. '447.

Regarding claim 1, Rigney et al. '447 teach a method of depositing a MCrAlY-coating on the surface of a single crystal article, such as a nickel base superalloy, the method comprising the steps of coating the article only at a local area (column 8 line 65 -- column 9 line 2) with the MCrAlY-coating by an electroplated method (column 5 line 23-28).

Relevant to claim 2, Rigney et al. '447 teach the article is coated locally with a gamma prime coating (column 7 lines 25-30).

Regarding claim 3, Rigney et al. '447 teach coating the article only at a local area with the MCrAlY-coating by an electroplated method (column 5 line 23-28). Replication of the electroplating method at different local areas on the surface of the article is not patentable unless a new and unexpected result is produced.

Regarding claim 4, Rigney et al. '447 teach during the step of coating the article only at a local area with the MCrAlY-coating by an electroplated method the areas not to be coated are masked with a masked material (column 8 line 65 -- column 9 line 2).

Relevant to claim 6, Rigney et al. '447 teach different areas are coated with different MCrAlY-coatings, the MCrAlY-coatings are selected according to the required properties in said areas in respect to one or a combination of oxidation, corrosion, thermal mechanical fatigue (column 1 line 63 -- column 2 line 12).

Regarding claim 7, Rigney et al. '447 teach the method is used as a repair process for a used MCrAlY-coating (figure 5).

Regarding claim 8, Rigney et al. '447 teach a gas turbine article is coated (column 1 lines 32-35).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster '205 in view of Rigney et al. '447.

Foster '205 teaches the method as described above in addressing claim 1.

The difference between the reference to Foster '205 and the instant claims is that the reference does not explicitly teach a gamma prime coating (claim 2) nor different areas are coated with different MCrAlY-coatings (claim 6).

Regarding claim 2, Rigney et al. '447 teach that "The nickel-base superalloys are typically of a composition that is strengthened by the precipitation of gamma-prime phase" (column 7 lines 25-30).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Foster '205 by using a gamma-prime phase coating as taught by Rigney et al. '447, because it would strengthen the nickel-base superalloy.

Regarding claim 6, Rigney et al. '447 teach an "invention [which] provides a gas turbine component that is protected against environmental damage in different locations by different types of protective layers and coatings. The invention recognizes that different regions of the surfaces of the turbine components experience different types of degradation due to the environment, even though the different regions may be separated by a matter of inches or less. The understanding of the performance of different protective layers has progressed to the point that various protective layers may be optimized for performance under these different conditions of environmental damage" (column 1 line 63 -- column 2 line 12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Foster '205 by coating different locations by different types of protective layers and coatings as taught by Rigney et al. '447, because different regions of the surfaces of the turbine components experience different types of degradation due to the environment.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rigney et al. '447 in view of Foster '205.

Rigney et al. '447 teach the method as described above in addressing claims 1 and 4.

The difference between the reference to Rigney et al. '447 and the instant claim is that the reference does not explicitly teach using wax as a mask.

Foster '205 teaches during the step of coating the article only at a local area with the MCrAlY-coating by an electroplated method the areas not to be coated are masked with wax (column 7 lines 58-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Rigney et al. '447 by using wax as a mask

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as taught by Foster '205, because wax is a suitable masking material for electroplating a selected area.

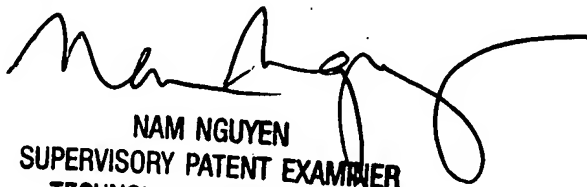
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luan V. Van whose telephone number is 571-272-8521. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LVV
10/5/05


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